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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,634	04/11/2006	Khaled Sarayeddine	PF030023	3506

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EXAMINER	
RAINEY, ROBERT R	
ART UNIT	**PAPER NUMBER**
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,634	SARAYEDDINE ET AL.	
	Examiner	Art Unit	
	Robert R. Rainey	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/7/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-4 and 6-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,803,902 to *Janssen et al.* ("*Janssen*") in view of U.S. Patent No. 6,950,088 to *Dalal* ("*Dalal*").

As to **claim 1**, *Janssen* discloses a scrolling color projection system and in particular: An image projection system comprising: a light valve comprising a pixel matrix array disposed in rows and columns on a substrate forming an active matrix (see for example Fig. 3), an illumination system for moving bands of different colored light over the light valve, perpendicularly to said rows (see for example Fig. 1), means for identifying the illumination color of each row of pixels of the light valve (see for example column 1 lines 41-43), means of managing video data of said images for controlling the writing of said pixels of the light valve (see for example column 1 lines 33-40), means of synchronizing the video data sent to each row of pixels of the light valve according to the illumination

color of said row identified by said identification means (see for example column 1 lines 33-40).

Janssen does not expressly disclose that the identification means comprise at least one photosensitive sensor disposed level with said pixels of the light valve.

Dalal discloses an LCD light valve and in particular: that the identification means comprise at least one photosensitive sensor disposed level with said pixels of the light valve (see for example column 2 lines 10-18 or Fig. 3 and column 4 lines 34-50 or the abstract especially, "Arrays or groups of photosensors are positioned laterally adjacent the active portion of the panel" or Fig. 2)

Janssen and *Dalal* are analogous art because they are from the same field of endeavor, which is displays based on light modulators.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to add photosensor based synchronization of light bands and data writing as disclosed by *Dalal* to the system disclosed by *Janssen*. The suggestion/motivation would have been to provide advantages such as maximizing the addressable time between color bands (see for example *Dalal* column 1 line 65 to column 2 line 3 or Figs. 1 and 3).

As to **claim 2**, in addition to the rejection of claim 1 over *Janssen* and *Dalal*, *Dalal* further discloses arrays of photosensors adjacent to the rows of

display elements with each sensor being disposed level with a row of pixels of the light valve (see for example column 4 lines 13-16 and Fig. 2 items 18, 20 and 22; note that the location of the photosensor arrays is constrained to be next to the rows of display elements thus any photosensor within this area will be coincident, i.e. level, with at least one of the rows) and calculation means for deducing the illumination color of the rows of pixels (see for example column 6 lines 5-8).

Janssen and *Dalal* disclose the claimed invention with the exception of there being fewer sensors than there are rows of pixels. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the number of sensors in each array required for the desired accuracy, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. In re Karison, 136.USPQ 184.

As to **claim 3**, in addition to the rejection of claim 1 over *Janssen* and *Dalal*, *Dalal* further discloses arrays of photosensors adjacent to the rows of display elements with each sensor being disposed level with a row of pixels of the light valve (see for example column 4 lines 13-16 and Fig. 2 items 18, 20 and 22; note that the location of the photosensor arrays is constrained to be next to the rows of display elements thus any photosensor within this area will be coincident, i.e. level, with at least one of the rows.) and the sensors being

designed to identify the illumination color of the rows (see for example column 2 lines 15-19).

Janssen and *Dalal* disclose the claimed invention with the exception of the identification means comprising at least one photosensitive sensor level with each row of pixels of the light valve, each sensor of a row being designed to identify the illumination color of that row. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a sensors per row and align the sensor with the row, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co , 193 USPQ 8 and that rearranging parts of an invention involves only routine skill in the art In re Japikse, 86 USPQ 70.

As to **claim** 4, in addition to the rejection of claim 3 over *Janssen* and *Dalal*, *Dalal* further discloses that the or each photosensitive sensor of the light valve is incorporated in said substrate (see for example column 2 lines 12-13 or column 4 lines 24-27).

As to **claim** 6, in addition to the rejection of claim 3 over *Janssen* and *Dalal*, *Dalal* further discloses that the or each photosensitive sensor is associated with a colored filter (see for example column 2 lines 10-12).

As to **claim** 7, in addition to the rejection of claim 6 over *Janssen* and *Dalal*, *Dalal* further discloses that said colored filter associated with said photosensitive sensor of each row of pixels of the light valve forms a continuous band associated with the set of photosensitive sensors of each row of pixels of the light valve (see for example column 4 lines 13-24 and Fig. 2 with items 18, 20 and 22 representing the continuous bands).

3. **Claims 5 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,803,902 to *Janssen et al.* ("*Janssen*") in view of U.S. Patent No. 6,950,088 to *Dalal* ("*Dalal*") and further in view of U.S. Patent No. 6,952,241 to *Ouchi et al.* ("*Ouchi*").

As to **claim** 5, in addition to the rejection of claim 3 over *Janssen* and *Dalal*:

Janssen and *Dalal* do not expressly disclose that the or each photosensitive sensor level with each row of pixels is designed to measure the illumination intensity of each row of pixels of the light valve.

Ouchi discloses a projection type video display apparatus and in particular: a photosensitive sensor designed to measure the illumination intensity of the of the light valve. (see for example column 24 lines 62-66).

Janssen, Dalal and *Ouchi* are analogous art because they are from the same field of endeavor, which is displays based on light modulators.

At the time of invention, it would have been obvious to measure the illumination intensity as disclosed by *Ouchi* in a system as disclosed by *Janssen* and *Dalal*. The suggestion/motivation would have been to provide advantages such as to maintain or improve the color temperature (see for example *Ouchi* column 24 lines 52-55).

As to **claim** 8, in addition to the rejection of claim 3 over *Janssen* and *Dalal*:

Janssen and *Dalal* do not expressly disclose that the light valve is of reflective type.

Ouchi discloses that the light valve is of reflective type. (see for example column 1 lines 9-10, especially "a reflection-type video display projector apparatus").

Janssen, Dalal and *Ouchi* are analogous art because they are from the same field of endeavor, which is displays based on light modulators.

At the time of invention, it would have been obvious to use a reflective type light valve as disclosed by *Ouchi* in a system as disclosed by *Janssen* and *Dalal*. The suggestion/motivation would have been to provide advantages such as to utilize an art recognized equivalent (see for example *Ouchi* column 1 lines 7-14).

Drawings

4. The drawings are objected to because Figures 1 and 3 contain unlabeled rectangular boxes, MPEP 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that

the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because it contains legal phraseology, specifically several uses of the terms "means", "comprise" and "comprising". Correction is required. See MPEP § 608.01(b).

Priority

7. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in France on Jan. 7, 2003. It is noted, however, that applicant has not filed a certified copy of the 0300228 application as required by 35 U.S.C. 119(b).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Rainey whose telephone number is (571) 270-3313. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RR/

AMARE MENGISTU
SUPERVISORY PATENT EXAMINER